

Morphology of a Hot Coronal Cavity Core as Observed by Hinode/XRT

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We follow a coronal cavity that was observed by Hinode/XRT during the summer of 2008. This cavity has a persistent area of relatively bright X-ray emission in its center. We use multifilter data from XRT to study the thermal emission from this cavity, and find that the bright center is hotter than the surrounding cavity plasma with temperatures of about 1.6 MK. We follow the morphology of this hot feature as the cavity structure rotates over the limb during the several days between July 19 - 23 2008. We find that the hot structure at first looks fairly circular, then appears to expand and elongate, and then shrinks again to a compact circular shape. We interpret this apparent change in shape as being due to the morphology of the filament channel associated with the cavity, and the change in viewing angle as the structure rotates over the limb of the Sun.